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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

LUGO, CARLOS

ART UNIT

PAPER NUMBER

3676

DATE MAILED: 05/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/730,475

Applicant(s)

SMOCK ET AL.

Examiner

Carlos Lugo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 21-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 21, 22, 26 and 27 is/are rejected.
- 7) ☐ Claim(s) 7-10, 23-25 and 28-30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to applicant's amendment filed on March 14, 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1-6,21,22, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Pat No 4,796,932 to Tame.**

Regarding claims 1,21 and 26, Tame discloses a lock mechanism comprising a latch (74) supported above and coupled to a frame (12) to rotate about a pivot axis (31) and rotatable between an unlatched and latched position. The latch includes a follower (118) surface offset from the pivot axis and a latching member (80) extending beyond the frame for interacting with the door.

A motor (138) drives a shaft (31) when the motor is actuated.

A cam (40) is mounted to the shaft for rotation thereabout. The cam is rotatable between a non-blocked position (Figure 4) and a blocked position (Figure 5) wherein the cam blocks movement of the latch from the latched position to the unlatched position (indirectly when the blocker 40 moves to a position wherein the lobe 54 hit the switch 116 and blocks the movement of the latch, Col. 4 Lines 7-34).

However, Tame fails to disclose that an actuator pin is located at the mounted plate so that an end extends beyond the mounting plate and that the cam rotates about 60°.

As to the location of the actuator pin, Tame discloses an actuator pin (18) that is supported at the door, not at the frame.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the actuator pin supported and extending from the frame, instead of the door, because the reversal of components in a prior art is considered as a design consideration that will not affect the mechanism of the lock.

As to the rotation of the cam, Tame illustrates that the angle difference between the lobes 52 and 54 is about 120°.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the claimed quantitative value (60°), since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art.

As to claims 2 and 5, Tame discloses that the lock mechanism further comprises a switch (114) controlling a motor driver circuit and wherein movement of the latch between the unlatched and latched positions induces a change in state of the switch from a state in which the motor drive circuit is disabled to a state in which the motor driver circuit is enabled (Col. 4 Lines 7-34).

As to claims 3, 22 and 27, Tame discloses that the cam (40) rotates between the non-blocked position wherein the cam does not inhibit rotation of the latch and the blocked position.

As to claim 4, Tame discloses that the lock mechanism further comprises a cam-actuated switch (112) and wherein rotation of the cam between the non-blocked position and the blocked position results in actuation of the switch.

As to claim 6, Tame fails to disclose that the cam includes a three lobed cam having three lobes and each two lobes defining a void therebetween. Tame discloses that the cam (40) include only two lobes defining a void.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have more than two lobes in the cam, because having more than one component of a prior art device is a design consideration within the skill of the art since the current specification fails to provide a good argument or criteria for having more than two lobes.

Allowable Subject Matter

4. **Claims 7,8,23,24,28, and 29 are objected** to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claims 9,10,25 and 30 would also be allowed because the claims depend from claims 8,24 and 29 respectively.

Reasons For Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowable subject matter:

Claims 7,8,23,24,28, and 29 presents allowable subject matter over the prior art of record because the teachings of the references taken as a whole do not teach or render obvious the combination set forth, including that the latch includes a blockable arm having a blocked member offset from the pivot axis and that is disposed between the voids of the cam lobes (claims 7,23 and 28); and that the lock mechanism further comprises a lever member that is couple to the latch (claims 8,24 and 29).

As to claims 7,23 and 28, Tame (US 4,796,932) fails to disclose that the latch includes a blockable arm having a blocked member offset from the pivot axis and that is disposed between the voids of the cam lobes.

As to claims 8,24 and 30, Tame fails to disclose that the lock mechanism further comprises a lever or blockable member that is couple to the latch.

Phillips (US 6,079,756) discloses a lock mechanism comprising a mounting plate (30) mounted to a frame and a latch (4) mounted to the mounting plate for movement about a pivot axis (at 36) and rotatable about the pivot axis between an unlatched and latched position. The latch includes a follower surface (46) offset from the pivot axis.

An actuator pin (60), movably supported by the mounting plate, includes an outer end (64) extending beyond the mounting plate for engaging the oven door (14) upon closure and a cam end (68) engaging the follower surface for rotating the latch into the latched position wherein the door is adapted to be captured by the latch.

A blocker (86) is selectable movable into a blocking position when the latch is in a latched position for interfering with the rotation of the latch such that the latch is locked into the latched position for locking the oven door in a closed position.

An electromechanical actuator (82) is adapted to move the blocker.

However, Phillips fails to disclose that movement of the blocker into the blocking position induces additional movement of the latch to pull the oven door closer to the frame. Phillips discloses that the blocker (86) is used only to block the rotation of the latch, not to impart additional movement to the latch.

Arute (US 4,593,945) discloses an oven lock mechanism comprising a mounting plate (10); a latch (24) that includes a follower surface (30) offset from the latch pivot axis; an actuator pin (28); a blocker (26); and an electromechanical actuator (29).

However, Arute fails to disclose that movement of the blocker into the blocking position induces additional movement of the latch to pull the oven door closer to the frame.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

6. Applicant's arguments filed on March 14, 2005 have been fully considered but they are not persuasive.

Although the examiner by mistake point out that the actuator pin presented by Tame was element 16, instead of element 18, any ordinary skill in the art, if the examiner mentions that the follower surface in the device described by Tame is element 118 and if the claim recites that the actuator pin will engage the follower surface, would know and understand that the pin referring to is element 18 and not the striker 16. However, in order to "clarify" the applicant, Tame discloses an actuator pin 18 that engages a follower surface 118. The only difference is that the actuator pin is not located at the frame with the latch; Tame discloses that the actuator pin 18 is located at the door so as to engage the follower surface 118 in order to activate the latch.

It would be obvious to one having ordinary skill in the art to have the actuator pin extending from the frame instead of the door, because the reversal of components, having the actuator pin 18 extending from the frame 12, instead of from the door, in a prior art reference, where there is no disclosed significance to such reversal, is a design consideration within the skill of the art.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lugo whose telephone number 571-272-7058. The examiner can normally be reached on 9-6pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached on 571-272-7087. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

C.L.

Carlos Lugo
AU 3676

May 9, 2005.



DANIEL P. STODOLA
SUPERVISORY PATENT EXAMINER
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